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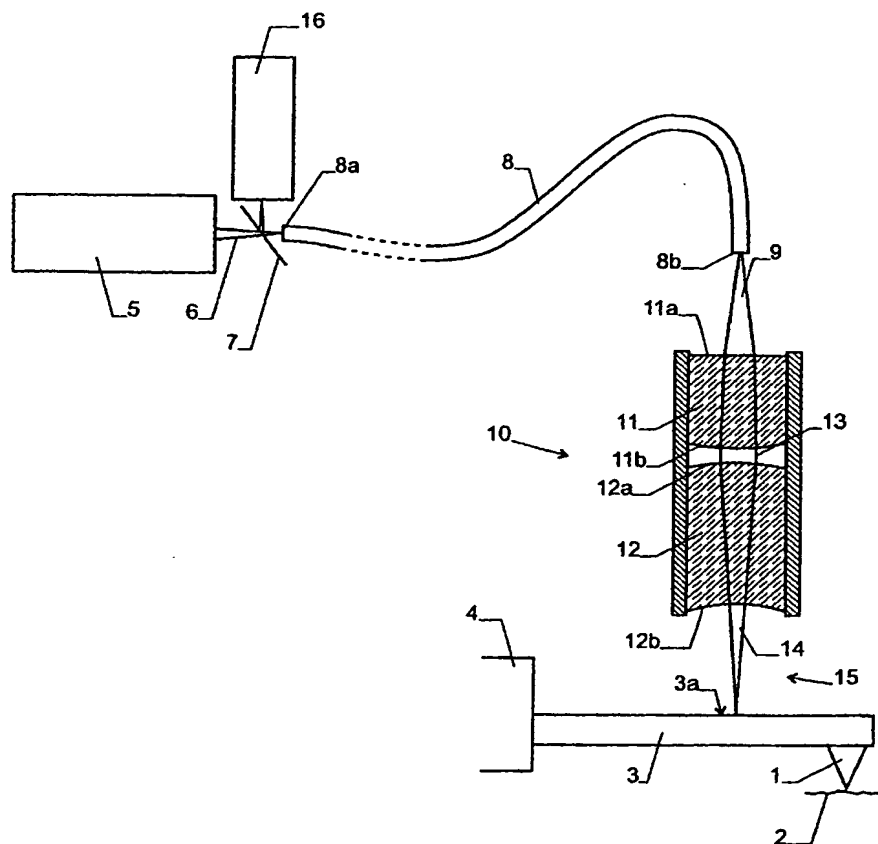
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(54) Title: SENSOR WITH CANTILEVER AND OPTICAL RESONATOR



(57) **Abstract:** An optical sensor, in particular for a scanning force microscope, measures the deflection of a cantilever (3) using an optical resonator between the cantilever (3) and an output surface (12b) of a lens assembly (10). In order to form the resonator, output surface (12b) is concave and parallel to the wavefronts of the light within the resonator. This design provides a resonator of high stability and allows to keep the distance between lens assembly (10) and cantilever (3) comparatively large.

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